AMENDMENTS TO THE CLAIMS

Claim 1 (Canceled)

Claim 2 (Original): A vehicle surroundings monitoring apparatus for monitoring surroundings of an own vehicle, comprising:

imaging means for taking picture images and for outputting image information;

radar means;

first solid object detecting means for detecting first solid objects based on said image information;

second solid object detecting means for detecting second solid objects based on signals from said radar means;

fusion solid object establishing means for establishing fusion solid objects composed of single first solid objects, single second solid objects and a combination of said first solid objects and said second solid objects by fusing said first solid objects and said second solid objects;

first reliability judging means for judging a degree of reliability of said fusion solid objects based on a detecting situation of said respective fusion solid objects by said first solid object detecting means;

second reliability judging means for judging a degree of reliability of said fusion solid objects based on a detecting situation of said respective fusion solid objects by said second solid object detecting means; and

preceding vehicle selecting means for selecting a preceding vehicle from said fusion solid objects when it is judged that said fusion solid objects have a specified level of reliability according to either of said first reliability judging means and said second reliability judging means.

Claim 3 (Original): The vehicle surroundings monitoring apparatus according to claim 2,

wherein said first solid object detecting means register a solid object having at least two surfaces connected with each other through a corner as a corner-like solid object and

said first reliability judging means judge said reliability of said respective fusion solid objects based on the number of times of coincidence of the fusion solid objects with either of said single first solid objects and a combination of said first solid objects and said second solid objects and at the same time based on the number of times of registration of said respective fusion solid objects as said corner-like solid object by said first solid object detecting means.

Claim 4 (Original): The vehicle surroundings monitoring apparatus according to claim 2, wherein said second reliability judging means judge said reliability of said respective fusion solid objects based on the number of times of coincidence of said fusion solid objects with either of said single second solid objects and a combination of said first solid objects and said second solid objects.

Claim 5 (Canceled)

Claim 6 (Previously Presented): A traveling control system for controlling a traveling of an own vehicle based on information of a preceding vehicle selected by said vehicle surroundings monitoring apparatus described in claim 2.

Claim 7 (Previously Presented): A traveling control system for controlling a traveling of an own vehicle based on information of a preceding vehicle selected by said vehicle surroundings monitoring apparatus described in claim 3.

Claim 8 (Previously Presented): A traveling control system for controlling a traveling of an own vehicle based on information of a preceding vehicle selected by said vehicle surroundings monitoring apparatus described in claim 4.

Claim 9 (Previously Presented): A vehicle surroundings monitoring apparatus for monitoring surroundings of an own vehicle, comprising:

imaging means for taking picture images and for outputting image information;

radar means;

first solid object detecting means for detecting first solid objects based on said image information;

second solid object detecting means for detecting second solid objects based on signals from said radar means;

fusion solid object establishing means for establishing fusion solid objects composed of single first solid objects, single second solid objects or a combination of said first solid objects and said second solid objects by fusing said first solid objects and said second solid objects;

first reliability judging means for judging a degree of reliability of said fusion solid objects based on a detecting situation of said fusion solid objects by said first solid object detecting means;

second reliability judging means for judging a degree of reliability of said fusion solid objects based on a detecting situation of said fusion solid objects by said second solid object detecting means; and

preceding vehicle selecting means for selecting a preceding vehicle from said fusion solid objects when it is judged that said fusion solid objects have a specified level of reliability according to either of said first reliability judging means and said second reliability judging means.

Claim 10 (Previously Presented): The vehicle surroundings monitoring apparatus according to claim 9,

wherein said first solid object detecting means register a solid object having at least two surfaces connected with each other through a corner as a corner-like solid object and

said first reliability judging means judge said reliability of said fusion solid objects based on the number of times of coincidence of the fusion solid objects with said single first solid objects or a combination of said first solid objects and said second solid objects or the number of times of registration of said respective fusion solid objects as said corner-like solid object by said first solid object detecting means.

Claim 11 (Previously Presented): The vehicle surroundings monitoring apparatus according to claim 9,

wherein said second reliability judging means judge said reliability of said fusion solid objects based on the number of times of coincidence of said fusion solid objects with either of said single second solid objects or a combination of said first solid objects and said second solid objects.

Claim 12 (Previously Presented): A vehicle surroundings monitoring apparatus for monitoring surroundings of an own vehicle, comprising:

imaging means for taking picture images and for outputting image information;

radar means;

first solid object detecting means for detecting first solid objects based on said image information, wherein said first solid object detecting means registers a solid object having at least two surfaces connected which each other through a corner as a corner-like solid object;

second solid object detecting means for detecting second solid objects based on signals from said radar means;

fusion solid object establishing means for establishing fusion solid objects composed of single first solid objects, single second solid objects or a combination of said first solid objects and said second solid objects by fusing said first solid objects and said second solid objects;

reliability judging means for judging a degree of reliability of said fusion solid objects based on a number of times of coincidence of the fusion solid objects with said single first solid objects or a combination of said first solid objects and said second solid objects or a number of

times of registration of said fusion solid objects as said corner-like solid object by said first solid object detecting means; and

preceding vehicle selecting means for selecting a preceding vehicle from said fusion solid objects when it is judged that said fusion solid objects have a specified level of reliability according to said reliability judging means.

Claim 13 (Previously Presented): A vehicle surroundings monitoring apparatus for monitoring surroundings of an own vehicle, comprising:

imaging means for taking picture images and for outputting image information;

radar means;

first solid object detecting means for detecting first solid objects based on said image information;

second solid object detecting means for detecting second solid objects based on signals from said radar means;

fusion solid object establishing means for establishing fusion solid objects composed of single first solid objects, single second solid objects or a combination of said first solid objects and said second solid objects by fusing said first solid objects and said second solid objects;

reliability judging means for judging a degree of reliability of said fusion solid objects based on a number of times of coincidence of said fusion solid objects with said single second solid objects or a combination of said first solid objects and said second solid objects; and

preceding vehicle selecting means for selecting a preceding vehicle from said fusion solid objects when it is judged that said fusion solid objects have a specified level of reliability according to said reliability judging means.